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Teaching Statement

My academic career in Computer Science has been positive due to the vast amounts of teaching and mentorship I received as an undergraduate and graduate student. I look forward to providing similar teaching and mentorship to students. I have experience as a teaching assistant, mentor, and participating in outreach opportunities. Below, I will discuss my experiences in detail and mention my teaching approaches and interests.

Teaching, Mentoring, and Outreach Experience
I was a teaching assistant for CSE 440: Introduction to HCI for undergraduates ([https://courses.cs.washington.edu/courses/cse440/11au/](https://courses.cs.washington.edu/courses/cse440/11au)) – a project based course designed to have students work in groups to create new technology solutions and evaluate them with real world users. As lead TA, I led weekly meetings with all of the project groups to ensure that they were making progress, provide project feedback and give advice on how to move forward. I enjoyed seeing the different projects move from conception to fruition.

My second teaching assistant experience was also a form of outreach; I created and taught a 9 week Saturday Computing Experience for Deaf High school students. I taught them basic ideas about Computer Science, and allowed them to create projects on an Arduino Uno through the use of interpreters. I developed a curriculum using the Arduino, where the students developed projects using both hardware and software. The first five weeks were structured and everyone completed the same projects. The last four weeks were designed so each student could design and develop their own project. In addition, I led Computer Science Unplugged activities for the students in order to provide an entertaining way to learn the breadth of Computer Science.

Additionally, I had the opportunity to give a guest lecture for the Masters of Human-Computer Interaction and Design on Accessibility and why it is important to strive for universal accessibility in design. In addition, two years in a row, I led a Computer Science activity with Arduino (year 1) and Scratch (year 2) to local high school students with disabilities. They had the opportunity to try out smaller projects to get a grasp of the capabilities of technology.

I have had experience with mentorship as well. After my outreach teaching experience, I learned American Sign Language (ASL) and I spent one summer tutoring three Deaf college students in their introductory computer science course. I also three months each with two undergraduates on my work with Eyes-Free Yoga ([http://dub.washington.edu/projects/eyes-free-yoga](http://dub.washington.edu/projects/eyes-free-yoga)); they helped design and deploy the system in a 2 month long study in the homes of 4 people who have a visual impairment. I also mentored a female high school student with a 2 week project studying how the Microsoft Kinect could be used to give real time feedback for ballet postures.

Teaching Approach – Universally Accessible Education
From my experiences as a student and as a teaching assistant, my most enjoyable courses were project-based, but with reading and homework to complement the material being presented. Allowing for students to work on projects provides a more real world application of their learning and provides the opportunity to engage in future research activities if they have the desire. In fact, my experience as an undergraduate student researcher is what persuaded me to
pursue a career in Computer Science, and it drives me to provide the same opportunities with interesting projects and mentorship.

In addition, because of my research and outreach experiences, I walk the world with an accessibility lens. I am quick to notice a pool lift for wheelchair users, but also when the accessible route through a building takes a person an extra five minutes traversing a maze of ramps and elevators. I enjoy the fact that several crosswalks have sounds to convey walking in a particular direction, but I am frustrated by the fact that live sporting events are not captioned for the hearing impaired. I educate those around me, both colloquially and in lectures, about how the world can be more accessible.

The accessibility lens has improved my ability to generate content and deliver presentations. I ensure my research videos convey the same story when only seeing or hearing the video. My presentations involve slide decks that are easy to read and enhance my speaking. My slides lack of clutter, have images in which I describe, and use few white words on black background. People understand the content while focusing on my words. I enjoy the use of multiple modalities to keep the audience captivated throughout a longer presentation or lecture, and plan to make assignments universally accessible.

The accessibility lens also enables me to understand that students will have diverse backgrounds, and integrate that into my curriculum from the beginning. In order to do this effectively, I will draw from existing literature on how to universally design courses in post-secondary education [1]. For example, I will determine the essential components of the course and outline clear course objectives and expectations for the students. In addition, I would provide multiple methods for students to demonstrate their knowledge both in person and remotely [1].

**Teaching Interests**

As an assistant professor, I would be excited to teach several courses including:

- **Human-Computer Interaction:** I would be happy to teach this course at the undergraduate or at the graduate level. For an undergraduate course, I would have a group project that takes place over the term. As I present course material (and assign readings), the students would apply the concepts to their projects. For example, I would have the students read, understand, and use Stanford’s d.School design thinking toolkit to guide students through brainstorming, prototyping, and conducting user studies. For the graduate course, I would have the students complete more independent projects with groups of size 1-3. During class period, the students would discuss assigned research papers in different subtopics in HCI (e.g. persuasive technology, interactive systems, crowdsourcing).

- **Accessibility:** This course could also be an undergraduate or graduate project based course. I would mentor students in the design and development of a system that can help people with some form of disability. In addition, I would teach students on how to make their documents and presentations accessible to increase their chance for impact.

- **Core Computer Science Courses:** While I do not have previous experience in teaching these courses, I would also be excited in teaching undergraduate introductory courses in programming, computer vision, data structures and algorithms, fundamentals of database systems, and data science.

**References**